Poverty and Media: The Use of SEPAKAT 3.0 Application for Poverty Eradication Policy Planning in Indonesia

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ABSTRACT
SEPAKAT 3.0 is a web-based application bridging government's data usage and policy planning system, developed by Indonesian Ministry of National Development Planning (BAPPENAS) to accelerate evidence-based poverty reduction programs and to support smart government. The research question is: how SEPAKAT 3.0 is used to analyze poverty problems and policy action plans by the local government. This study provides external evaluation on the system utilization. The novelty lies in the research focus, which has never been investigated by previous researchers. Its main contribution is to build the habit of formulating the data evidence-based policy and to be oriented to the change of effect. This study uses Magelang city as a case, having highest poverty rate for small town category nationally and been awarded for Innovative Government for 4 consecutive years at the same time. This study incorporates quantitative approach, analyzing secondary data to identify the trends and the quadrant of factors causing poverty in Magelang. The analysis is carried out using the Theory of Change explaining the causes of poverty, as designed in the SEPAKAT 3.0. The result shows SEPAKAT 3.0 has met the criteria of applicability and usefulness to plan, and evaluate the local poverty alleviation policy. This study recommends that SEPAKAT 3.0 be developed as an open source big data on poverty in Indonesia. Further researches are suggested to expand the research location and to study more aspect to develop SEPAKAT 3.0 aplikation.

Keywords: Smart Governance, Poverty Eradication, Web-Based Application, Poverty and Media.

1. INTRODUCTION
This article departs from a proposition that data is an effective weapon to fight against poverty, potentially to change the poor’s life [1]. “To end poverty in all its forms everywhere in 2030 is one of Sustainable Development Goals (SDGs). One of its targets is to build the resilience of the poor and those in vulnerable condition, and to reduce their vulnerability to extreme incidence related to climate and economic, social, and environmental shock and disaster. It is very relevant to post-covid-19 pandemic condition generally increasing the number of the poor people throughout world.

Previous studies having ever been conducted related to the poverty alleviation in Indonesia generally indicate that the poverty alleviation policy affects positively the improvement of Indonesians’ quality of life. Indonesians’ standard of life increases about proportional to the economic growth rate and poverty rate decreases [2]–[4]. Nevertheless, due to Covid-19 pandemic poverty rate increased in 2020. Central Statistic Bureau (BPS) recorded that the number of poor populations in Indonesia is 22.55 millions people in 2020, increases by 2.76 millions from that in previous year. Poverty rate is 10.19 percents, increasing by 0.97 percentage point (pp) from 9.22 percents in the period of September 2019. Similar
condition can be found in this research location, Magelang City. Due to Covid-19 pandemic, poverty rate in Magelang City increases by 0.12 percent from 7.46 percent in 2019 to 7.58 percent or about 9.300 people in 2020. Covid-19 pandemic affects significantly the absorbability of labors in small industry; therefore many labors who were laid off making innovation to start their own business. The number of productive-age populations in Magelang city is 23,522 people with unemployed proportion of 5.59%, not-working 9.08%, work hour reduction 81/59% and the rest switching to the non-labor force.

The urgent point in poverty alleviation policy is the availability of updated, complete, and adequate data for policy analysis purpose. Good poverty data makes the poor visible to policy makers who decide on the intervention of poverty policy. An effective data can shows the poor, where they live, the number of the poor people, and why they are poor. The need for poverty data is very complex and Statistic Bureau often presents the data late. It is because data parameter and data production process takes long time. Consequently, decision making on poverty policy is impaired. The development of information and communication technology has an impact on digitalization of poverty data. The combined data from various sources are integrated into ICT system to help the policy planners make decision more quickly [5]–[7].

Republic of Indonesia’s Ministry of National Development Planning/National Development Planning Agency released a system to analyze poverty data called SEPAKAT 3.0 or Integrated Poverty Planning, Budgeting, Monitoring, Evaluation, And Analysis in 2018. SEPAKAT can be accessed by all local governments in Indonesia through https://sepakat.bappenas.go.id/snapa/. This system is a bridge connecting data utilization to local government’s policy planning application system. SEPAKAT 3.0 is a web-based system facilitating the policy designing process, an analysis on poverty data equipped with varying statistic product options, the planning with problem analysis and intervention, budgeting, monitoring of development implementation and performance achievement, and evaluation. SEPAKAT application supports the implementation of smart government, the public problem solving based on data algorithm in corresponding area. The series of process in SEPAKAT 3.0 application are performed automatically with holistic, integrative, thematic, and spatial approaches.

The problem of research presented in this article is: “how applicable and useful is the SEPAKAT 3.0 application to design poverty alleviation policy?”. This case study was conducted in Magelang, a small town with high poverty rate but getting Innovative Government Award in the last 4 years. This urgency of research is that it contributes external evaluation on the applicability and the usefulness of data processing and analyzing system mandated by central government to local government. This research presents lesson learned from the result of SEPAKAT 3.0 system use trial. The lesson learned is used as the feedback to the strengths and the weaknesses of SEPAKAT 3.0 application system.

2. METHOD

The research method was quantitative one, based on secondary data explored data server system. The objective of research is the applicability of poverty data providing and processing application to plan, to monitor, and to evaluate the poverty alleviation policy, called SEPAKAT 3.0 application. SEPAKAT 3.0 is a web-based poverty analysis device to produce empirical evidence to plan, to monitor, and to evaluate the poverty alleviation policy. The use of SEPAKAT data for poverty analysis follows the Theory of Change framework.

The research technique used was participatory research approach. The procedures taken to do participatory research are as follows. Firstly, early mapping with Local Development Planning Agency (hereafter called BAPPEDA) of Magelang City to map: (i) anything needing to be prepared to arrange Regional Poverty Alleviation Plan plan; (ii) Data provided by SEPAKAT 3.0; (iii) How to process and to analyze data for Magelang City context. Secondly, along with Bappeda and Regional Poverty Alleviation Coordination Team (hereafter called TKPKD) of Magelang City dividing the duty to extract data from SEPAKAT 3.0, and analyzing them based on economic, social, and physical work groups of public service infrastructure. Thirdly, preparing the chart of the relation between poverty issue and Human development Index based on ToC framework from SEPAKAT 3.0. application. Fourthly, holding Focus Group Discussion related to the result of analysis on poverty problem trees obtained from work group, to be arranged later. Fifthly, formulating the priority of poverty alleviation program based on the result of ToC analysis from SEPAKAT 3.0. application system. Sixthly, conducting analysis on the priority of poverty alleviation location with matrix of poverty group quadrant (40% of population with lowest welfare level).

The informants of research were state civil apparatus in Local Development Planning Agency (hereafter called BAPPEDA), Regional Poverty Alleviation Coordination Team (hereafter called TKPKD) of Magelang City, Regional Apparatus Organization (hereafter called OPD), Social Office, Regional Financial Managing Agency, Communication, Information and Statistic Service Office,

The assessment of SEPAKAT system’s usefulness and applicability is conducted in some stages: (i) checking the adequacy of data provided in SEPAKAT system to answer ToC “what is the face of poverty in Magelang City?”, (ii) checking the update of data available; (iii) doing data triangulation with other sources corresponding to the local condition, and (iv) exploring the use of all features.

Viewed from content aspect, the research was conducted using participatory research technique, i.e. exploring data from SEPAKAT 3.0 system along with informants, and then doing analysis along with BAPPEDA, TKPKD, and OPD constituting the member of Magelang City’s TKPKD work group. The result of FGD shows the portrait of city poverty in the last 5 (five) years.

Technique of analyzing data used was thematic description of poverty determinant. Overlay data of poverty variable was then done with the data of territorial location to provide recommendation on prioritized policy. The result of analysis is presented in the form of priority quadrant. Quadrants I-IV are interpreted into the priority of territorial-based policy intervention. Quadrant I is intended to the primary priority for the positive and escalating priority handling issue, meaning that the higher number of cases, the more are the people affected; therefore intervention is required immediately through poverty alleviation policy. Quadrant II is the second priority, when the number of case is high but only the little number of people affected. Quadrant IV is the third priority, when the number of case is not too high, but many people are affected. Quadrant III is the fourth priority, in which neither the number of cases nor the number of people affected is too high.

This result of data and information processing from SEPAKAT was confirmed through FGD along with stakeholders in Magelang City to assess the appropriateness and the usefulness of information. The result of assessment conducted by stakeholders justify the applicability and the usefulness of SEPAKAT 3.0 application to the regional poverty alleviation policy.

3. BASIC THEORY

SEPAKAT 3.0 uses Theory of Change (ToC) to analyze the causal relationship in the poverty phenomenon and the alternative design of policy intervention. ToC is a systematic exploration explaining comprehensively why the phenomenon of poverty occurs. ToC also explains the indicator of change expected and the implication of intervention in the context of local government. ToC operates based on data to support argument [8]. The application of Theory of Change in this research is used to explain the variables contributing to poverty indicator [9]–[12].

Generally, poverty has four basic dimensions: (1) lack of opportunity, (2) low of capabilities, (3) low-level of security, and (4) low of capacity or empowerment. To understand the poverty issue, the locality factor of a region should be understood first as an attempt of alleviating poverty more objectively and on target.

The characteristics of data presented in SEPAKAT web include macro economic and micro sectoral data [13]. Previous studies found that poverty is a complex multidimensional phenomenon, because the factors affecting it pertain to all aspects of life, social, psychological, economic, and cultural [14], [15]. The variables identified as the cause of poverty phenomenon are: unbalanced income, low economic growth, unemployment, low productivity and wage in informal sector, inappropriate macroeconomic policy, economic degradation, crime and violence, corruption, labor reduction, poor government, inadequate job opportunity, poor resource and infrastructure use, inadequate policy, war and conflict, negative food productivity index, and governmental institutional power [16]–[19].

Meanwhile, viewed from technology aspect used by SEPAKAT, this research employed ICT4D (Information, Communication, Technology for Development) to assess its applicability in Magelang City. ICT4D is an ICT (Information, Communication, Technology) utilization model for development through the even distribution of ICT access and various ICT-related services and application, including the use of new media platform [20]. New Media is a communication media referring to the content accessible anytime and anywhere in each of digital devices, and enabling the interaction between information sender and receiver and the active participation by many parties [21], [22]. ICT functions as a provider of data spreading from various sources and to help the data users build a big picture of the issue studied. In the context of poverty analysis, ICT provides instrument to process big data into big picture of poverty at certain area level [23]–[26].

SEPAKAT 3.0 represents the ICT4D framework with new media, including: (i) the availability of ICT component and web to be utilized maximally for the development policy intervention; (ii) the availability of
Pivot Actor to utilize ICT for the development policy intervention; (iii) the availability of policy content intervened through ICT as the developmental instrument; and (iv) the availability targeted group becoming the parameter of changing condition following the use of ICT for development policy intervention.

4. FINDINGS AND DISCUSSION

This section will answer the research problem: how applicable and useful is the SEPAKAT 3.0 application to plan the poverty alleviation policy. The assessment of applicability is conducted using four criteria in the framework of ICT4D. The result of analysis is presented as follows. Firstly, the assessment is conducted on the aspect of ICT network availability. SEPAKAT 3.0 web provides data device, concept and measurement dictionary, module of analysis for planning, monitoring, and evaluation.

Secondly, the assessment is conducted on the aspect of pivot actor availability as the users for development policy purpose. SEPAKAT 3.0 as the product of Republic of Indonesia BAPPENAS’ innovation supported by Australian Governance and The World Bank has an impetus to Local Government through TKPKD institution. The institution and function of TKPKD is regulated in Republic of Indonesia Minister of Internal Affairs’ Regulation Number 53 of 2020 about Work Mechanism and Work Synchronization, as well as Institution and Human Resource Building of Regency/Municipal Poverty Alleviation Coordination Team.

Thirdly, the assessment is conducted on the availability of policy content intervened with through ICT. SEPAKAT 3.0 is a web-based data processing medium to produce big picture of local poverty issue throughout Indonesia. SEPAKAT 3.0 provides macro-level data series such as economic growth, Gini Index, Open Unemployment Rate, Macro Poverty Rate, Growth Incident Curve, Human Development Index component, Gender Development Index component and other macro indicators. SEPAKAT 3.0 also provides micro data of regency/municipal/provincial level related to primary service and the fulfillment of population’s basic rights. The sample data of basic rights intended are, among others: (i) infrastructure and education indicator, (ii) infrastructure and health indicator, (iii) infrastructure and housing and settlement indicator, (iv) manpower structure, (v) profile of social protection and guarantee, and (vi) access and benefit received by poor and vulnerable people, public participation in public service as the variables putatively contributing to poverty level. Data source provided originates from: (i) data of national survey conducted by Central Bureau of Statistic(BPS), including National Social Economic Survey (Sakernas) and National Workforce Survey (Sakernas); (ii) Data of National Census conducted by BPS, including Data Potency Registration (Podes); (3) BPS’ publication, Gross Regional Domestic Product (GRDP); (4) Data of Social Ministry, Integrated Database (BDDT) or Integrated Social Welfare Data (DTKS); and (5) Ministry of Finance’s Data, Regional Financial Information System (SIKD).

Fourthly, the target group becomes the parameter of changing condition following the use of ICT for development policy intervention. SEPAKAT 3.0 system provides an analysis instrument for the determinant of poverty.

SEPAKAT 3.0 instrument analysis helps local government study the followings: (i) how poverty and vulnerability condition is in the region; (ii) why the poor and the vulnerable group has the risk of being left behind; (iii) whether or not the poor and the vulnerable group has capacity and probability to win the market competition to get job/business opportunity, thereby earning sufficient income to meet their basic needs; (iv) whether or not the poor and the vulnerable group get adequate access to public service related to the fulfillment of basic need; (v) whether or not the poor and vulnerable group is protected by the state to deal with its vulnerability; (vi) whether or not the regional budgeting policy has been pro-poor. SEPAKAT 3.0 also provides data utilization and analysis feature to recover from the effect of Covid-19 pandemic.

Viewed from the usefulness aspect, Magelang City has utilized SEPAKAT 3.0 to develop Poverty Alleviation Plan in 2021-2026. SEPAKAT 3.0 provides information on the trend poverty in the last decade, and the relative position of poverty in Magelang City among others cities in Central City. Information indicates the imbalance occurring between the poorest and the richest group in the term of average expenditure and the utilization of development product in education sector, health, housing, social security ownership, and imbalance in job structure.

Utilizing SEPAKAT 3.0 instrument and Theory of Change approach, basic problem, problem root and strategic issue were formulated through Focus Group Discussion along with Regional Apparatus Organization (OPD) and TKPKD of Magelang City. The basic problems related to poverty in Magelang City are: (i) inequality of expenditure growth per capita between the people with high and those with low income; (ii) inequality of job and business opportunity; (iii) inequality of the completion of 12-year compulsory learning; (iv) inequality of the fulfillment of need for healthy house; (v) inequality of social protection (health insurance, labor insurance, Old Day Security). The unequal condition of
poverty in Magelang City is presented in Figure 1.

Source: Data Analysis from SEPAKAT 3.0

Figure 1. Inequality of Expenditure Growth per Capita

As the part of assessment on the applicability and usefulness of SEPAKAT 3.0 data content, the author along with BAPPEDA of Magelang City did territorial data overlay to formulate the focus of intervention priority as directed by ToC. Magelang City’s territory is 1,853.64 Ha wide, with the population number of 120,020 people in 2020, meaning that its density is 6,905 people/km². There are 6,348 households with under-40% welfare level, consisting of 24,404 people. If the poor to the very poor households are integrated into territorial density, 4 (four) prioritized quadrants will be obtained. This quadrant analysis is the instrument of planning poverty policy introduced in SEPAKAT 3.0. The quadrant of welfare priority is presented in Figure 2. The first priority is in quadrant I, second priority in quadrant II, third priority in quadrant III.

Source: Data Analysis from Integrated Social Welfare Data October 2020

Figure 2. Inequality of Expenditure Growth per Capita

Meanwhile the root of poverty rate is: (i) less competitive human resource quality; (ii) less optimum Need Achievement culture; (iii) side effect of massive social aid distribution instead counterproductive to mental development and generating moral hazard “not shy to impoverish the self for the sake of obtaining poverty aid”. Furthermore, the Theory of Change analysis provides the map of poverty phenomenon as presented in figure 3.

Source: Data Analysis from Focus Group Discussion

Figure 3. The Cause and Effect of Poverty Phenomenon in the City of Magelang, Central Java, Indonesia

Having identified the root of problem and the prioritized location, SEPAKAT 3.0 then facilitated the Regional Apparatus Organization to investigate and to take action later based on the ToC framework. SEPAKAT 3.0 provides sample demo of how to organize problem tree and to formulate the direction of its poverty alleviation policy. In this case in Magelang City, Regional Action Plan for Poverty Alleviation in 2021-2026 is formulated. This Regional Action Plan (thereafter called RAD) building on ready-to-present evidence is the primary output of SEPAKAT 3.0 innovation. The outline of RAD for Poverty Alleviation ad the product of SEPAKAT 3.0 is as follows.

Strategic issue of poverty alleviation development at macro level is “to lower the inequality of the Poor’s expenditure and the inequality between the Poor’s expenditure and poverty line”. The attempt of alleviating poverty in Magelang City in 2021-2026 is takenwith the following directions of policy: (i) expanding job opportunity, business development, and productive work skill; (ii) strengthening Social Protection System, and (iii) strengthening the poverty alleviation institution. The policy direction is implemented by Regional Apparatus Organization through the poverty alleviation strategy of Magelang City in 2021-2026 as follows: (i) reducing the poor people’s expenditure burden; (ii) improving the poor people’s ability and income, (iii) developing and ensuring micro- and small-economic business sustainability; (iv) improving the development of infrastructure quality supporting economic and social activities to improve the poor people’s access to service; and (v) synergizing the Poverty Alleviation Policy and Program to improve the appropriateness of target in the Poverty Alleviation Program. The main cluster of Poverty Alleviation Program in Magelang City in 2021-2026 consists of: (i) integrated social aid and social security based on household, family, or individual, aiming to fulfill the basic rights, to reduce life burden, and to improve the poor people’s quality of life; (ii) Community empowerment program and reinforcement of micro- and small-scale business performer, aiming to strengthen the poor group’s capacity to participate in and to benefit from the development process; and (iii) other programs that can...
improve the poor’s economic activity and welfare either directly or indirectly, including the program using village/kelurahan fund. The poverty alleviation work plan of Magelang City in 2021-2026 consists of 46 (forty six) programs and 50 (fifty) activities.

The difficulty found is related to the application that is less user-friendly and not familiar, with less relevant procedure of updating data during the planning process. The Magelang City government is encouraged to use SEPAKAT 3.0 due to the mandate of regulation to develop Regional Poverty Alleviation Plan and the performance statement annually and to report it to the governor in the province. In other words, the habituation of using web-based data processing system connected to central government is legal-driven, because of the mandate inherent to the structure of reporting to the higher government. The adoption of web-based data processing system and network integrated into central government is not demand-driven on the initiative of local government, but it is more legal driven.

SEPAKAT 3.0 application has fulfilled sufficiently the criteria to be applied and utilized based on ICT4D. Nevertheless, some points still need to be taken account considering the result of Focus Group Discussion along with stakeholders for further development. Firstly, data presentation level has not informed yet to kelurahan unit level. Secondly, not all indicators have had data completeness and update. Thirdly, no analysis instrument is available for projecting the causal relationship between case problem condition and database-based intervention probability existing. Fourthly, data availability should be developed in order to present Indonesia’s poverty big data more comprehensively. Fifthly, system should be developed in order to be accessible to the public to help analyze the Indonesia’s poverty big data. Currently, data of SEPAKAT 3.0 is accessible only to the local governments that have registered to Bappenas and received training for the use of SEPAKAT 3.0. Although SEPAKAT 3.0 web provides notification, those that will conduct research on poverty can obtain data based on the application submission. Sixthly, Bappenas should activate social media to disseminate the usefulness of SEPAKAT 3.0 and poverty issues in Indonesia, so that more stakeholders are affected to use SEPAKAT 3.0. SEPAKAT 3.0 publishes the latest content on Instagram (https://www.instagram.com/sepakat_ri/) on October 16, 2019 with 133 followers (per June 29, 2021). The last post was uploaded in Facebook https://www.facebook.com/sepakat.bappenas, on October 16, 2016. The last post was uploaded in Twitter account of SEPAKAT Bappenas @sepakat_ri on October 2019 with 23 followers (per June 29, 2021). And it was uploaded in Youtube Channel SEPAKAT, https://www.youtube.com/channel/UCShCZrjvSborEB

5. CONCLUSION

The conclusions of research are as follows. SEPAKAT 3.0 as the Ministry of National Development Planning’s innovation has met the criteria of applicability and usefulness to plan, monitor, and evaluate the local poverty alleviation policy. The main contribution of SEPAKAT 3.0 is to build the habit of formulating the data evidence-based policy and to be oriented to the change of effect. This mission is instilled into local government through the Theory of Change framework.

Nevertheless, some points still need development in technical and substantive aspects. Viewed from substantive aspect, SEPAKAT 3.0 needs to include the effect of people’s value and attitude affecting the quantity of poverty data. For example, the targeted recipient of poverty aid is inappropriate, thereby generating the condition of dependence on poverty aid. In this case, a paradox occurs, in which the poverty aid does not make the poor people independent, but instead makes them enjoy the dependence on the government. Meanwhile, viewed from technical aspect, the function of SEPAKAT 3.0 should be developed as the server of poverty big data in Indonesia, in order to meet the need for analysis with real time data variance.

This research has a limitation as it studies the utilization of SEPAKAT 3.0 intensively in one location. Further research is recommended to expand the research location and to study more in-depth the research issue from the aspect of vision to develop the big data of Bappenas as the developer of SEPAKAT 3.0 systems.
REFERENCES


